

LATE

HAWAII STATE SENATE- REGULAR SESSION 2015
COMMITTEE ON ENERGY AND ENVIRONMENT (ENE)

Feb. 5, 2015

Conference Room 225; 2:45 pm

LATE

SB1227 - RELATING TO FOOD WASTE

REPORT TITLE: Commercial Organic Material; Solid Waste Bans; Landfills

Chair Sen. Mike Gabbard , V.C. Sen. Josh Green and Committee Members

Aloha. My name is Michael Lurvey, Chairman and President of both Carbon Geo-Tek Consultants (CGT) and Carbon Bio-Engineers Inc (CBEI) a domestic corporation which owns and operates a facility in Campbell Industrial Park, Kapolei Hawaii.

Our landfills are at or nearing capacity, with appropriate & logical locations for new ones hard to find. They are environmental health hazards:

- They can contaminate groundwater supplies
- Storm-driven landfill runoff into near shore waters or areas where people live or frequent also pose threats to our health and food supply
- They leach Greenhouse gases to the atmosphere

We need to redirect our preferences for how we manage waste. Landfills should no longer be the primary choice for that.

We have implemented and now use large, utility-scaled technologies as alternatives to landfills whose processes reduce the amount of waste needing landfill disposal. They eliminate waste by destroying or converting it. Given the considerable public investment in them, we should continue to use them. We should also consider the opportunities the value inherent in some of our wastes provide. Organic waste has such value: it contains energy and nutrient value that, if harvested, can be valuable for a range of human uses. Rather than consigning them to landfills, we should pursue those waste management techniques that can return some of those values back to us.

Anaerobic digestion, composting, and use as animal feed are among the possibilities that this Bill has considered.

We have another alternative that this bill has not mentioned. CGT and CBEI have developed and operate a commercially-scaled carbon conversion system capable of converting any carbon-based solid into clean electrical power, clean burning diesel and kerosene equivalents, gaseous fuels, activated carbon, and bio chars. It is a process known as "TCOM": the Thermal Conversion of Organic Material (this is a patented and industry reviewed Thermochemical Mechanical process).

It is environmentally benign: as a closed-loop process, it has no exhaust, produces no greenhouse gases or other kinds of pollution. The energy it produces is 10 to 31 times the amount of energy it takes to run

it. It's also compact: doesn't take a lot of space, is relatively inexpensive, safe and simple to run, and fast: it can convert a load of carbon-based wastes in 40 – 60 minutes, leaving no useless organic residue needing disposal.

The Carbon Geo-Tek TCOM system won the National Energy Innovation Award in the 2013 Total Energy USA Conference and Exposition in Houston Texas, from a field of entrants that included DuPont, Halliburton, Shell and other large players, and as a result has attracted the interest of entities like NASA, Battelle Corporation, and the Walton Sustainability Institute.

We invite you all to visit us at our plant at Campbell Industrial Park and see who we are and what we can do.

Thank you for this opportunity to share our views and what we can do to help.

Mahalo a nui loa

Michael Lurvey



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Chair Sen. Mike Gabbard, V. C. Sen. Josh Green and Committee Members:

Good afternoon. My name is Dante Carpenter, Secretary-Director with Carbon Bio-Engineers, Inc. (CBEI), which together with Carbon Geo-Tek (CGT), owns and operates a processing facility located at Campbell Industrial Park in Kapolei. Its mission is the “design and development of systems to convert organic, commercial and industrial waste of high carbon content into valuable by-products.” This system employs the use of Thermal Combustion of Organic Materials, aka TCOM process, a hybrid gasification carbonization process that can reduce various organic feedstock(s) and tires (non-fossil fuel) into carbon products and synthetic gas. The CBEI process has a negligible effect on the environment by outperforming the minimum allowed for EPA’s Emission Standards.

We strongly urge that SB 1227 incorporates an addition into the proposed amended language in Section 2., Chapter 342G- , (b) the additional term “TCOM Process,” between “anaerobic digestion,” and “or animal feed.”

Further, in conjunction with the amended language proposed, we would invite the Chair and all members of the Energy and Environment Committee to visit our processing site located at the corner of 94-1221 Ka Uka Boulevard in the Campbell Industrial Area to witness the system in operation. We are in the process of installing updated equipment into the operations controls section and are nearly complete.

Finally, this discussion is timely and we strongly recommend SB 1227 be amended accordingly.

Mahalo a nui loa.